



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
David H. Palmer ) Group Art Unit:  
 )  
Serial No. 10/666,173 )  
 ) Examiner:  
Filed: September 19, 2003 )  
 )  
For: ELONGATE RECEIVER TUBE AND ) Attorney Docket 1-37091  
METHOD OF MAKING THE SAME )

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March 17, 2004

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.132

Honorable Sir:

I, David H. Palmer, declare the following:

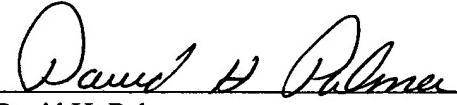
1. THAT, I am the inventor of the subject matter of the above-identified patent application;
2. THAT, from 1996 to present, I have been employed by Jems of Litchfield, assignee of the above application;
3. THAT, my present position with Jems is Vice President and Owner;
4. THAT, I have over 40 years of experience in the cold forming industry;
5. THAT, the Jems patent application is a reinforcing crimped flange formed on an end of a square cross-section heavy metal gage trailer hitch receiver tube formed by a cold forming process;
6. THAT, the claimed invention has taken into account the variations in tubing raw materials, including the variations in the tube industry standards and tolerances;
7. THAT, the claimed invention is formed by a novel, high volume, and low cost manufacturing process for cold forming the crimped reinforcing flange;
8. THAT, the claimed invention is formed by a process which includes a free flow forming process which results in wall thickness variations in the tubing raw materials being absorbed into the outer dimensions of the flange;

9. THAT, the use of the free flow forming process facilitates adherence to manufacturing tolerances, while permitting variations in the wall thickness of tubing raw materials, thus, standard raw materials can be used resulting in minimized raw material costs;
10. THAT, the claimed invention uses standard metal tubing from multiple sources in the industry;
11. THAT, since standard, low cost tubing raw materials can be used, and due to the improved strength discussed in the Declaration under 37 C.F.R. § 1.132 filed on November 14, 2003, substantial commercial success has been experienced, thus providing a nexus between the commercial success and the claimed invention;
12. THAT, the process used to form the claimed invention uses no mechanical restraints or recesses to alter the free flow process;
13. THAT, the forming of the claimed invention is accomplished outside of the clamp allowing free flow to occur wherein the tubing reaches a developed material limit and folds upon itself to form the flange;
14. THAT, U.S. Pat. No. 6,408,672 to Roe teaches a method of cold forming a tube end using a die cavity including a recess formed therein, the recess has a greater outside dimension than the tube which forms a flange, the process of forming the flange being analogous to a molding operation;
15. THAT, in the method disclosed by Roe, the tube is forced upon itself inside of the recess in order to form the flange, the flange final shape conforming to the shape of the recess;
16. THAT, in the method disclosed by Roe, calculations must be conducted to determine the volume of the recess, and the volume of material needed to fill the recess is obtained from the calculations;
17. THAT, variations in tubing wall thicknesses are not desirable in Roe since the variations will result in a volume of material different than the calculated amount necessary to fill the recess, causing either an undesirable overfilled recess or underfilled recess;
18. THAT, in order to reduce or eliminate the undesirable results due to variations in wall thickness, special and more expensive raw materials having tighter tolerances must be used with the method disclosed by Roe;

19. THAT, in order to fill the recess using the method disclosed by Roe, press equipment having a much higher capacity than that used in the claimed method must be used, resulting in higher costs; and
20. THAT, the process disclosed in U.S. Pat. No. 3,119,435 to Greenman is considerably different than the claimed process since the material being formed in Greenman is aluminum, which is more easily formed than the steel used in the claimed method.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States code, and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing thereon.

Date: 3/19/04

  
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David H. Palmer